

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-34. (Cancelled).

35. (Previously Presented) A method of flowing blood from a heart chamber to a coronary vessel, the method comprising:

providing a conduit with a first end and a second end;

providing a natural valve;

placing the conduit within a heart wall such that the first end of the conduit is open towards the heart chamber and the second end is open towards the blood vessel;
and

during diastole, restricting a flow of blood from the coronary vessel to the heart chamber via the natural valve.

36. (Previously Presented) The method of claim 35, wherein providing the natural valve includes providing the natural valve inside the conduit.

37. (Previously Presented) The method of claim 35, wherein providing the natural valve includes providing a section of blood vessel containing at least one naturally occurring valve.

38. (Previously Presented) The method of claim 37, wherein the section of blood vessel is a human vein.

39. (Previously Presented) The method of claim 37, wherein the section of blood vessel is an autograft.

40. (Previously Presented) The method of claim 37, wherein the section of blood vessel is an allograft.

41. (Previously Presented) The method of claim 37, wherein the section of blood vessel is a xenograft.

42. (Previously Presented) The method of claim 35, wherein the heart chamber is a left ventricle.

43. (Previously Presented) The method of claim 35, wherein the coronary vessel is a coronary artery.

44. (Previously Presented) A bypass system for implantation in a body of a patient, the system comprising:

a tube having a first end and a second end and being configured to be implanted in a heart wall such that the first end is open towards a heart chamber and the second

end is open towards a coronary vessel, the tube being further configured to permit blood to flow therethrough from the heart chamber to the coronary vessel; and

a natural valve configured to restrict blood flow from the coronary vessel to the heart chamber during diastole.

45. (Previously Presented) The system of claim 44, wherein the natural valve is disposed inside the tube.

46. (Previously Presented) The system of claim 44, wherein the natural valve includes a section of blood vessel containing at least one naturally occurring valve.

47. (Previously Presented) The system of claim 46, wherein the section of blood vessel lines an interior of the tube.

48. (Previously Presented) The system of claim 46, wherein the section of blood vessel is a human vein.

49. (Previously Presented) The system of claim 46, wherein the section of blood vessel is an autograft.

50. (Previously Presented) The system of claim 46, wherein the section of blood vessel is an allograft.

51. (Previously Presented) The system of claim 46, wherein the section of blood vessel is a xenograft.

52. (Previously Presented) The system of claim 44, wherein the heart chamber is a left ventricle.

53. (Previously Presented) The system of claim 44, wherein the coronary vessel is a coronary artery.

54-89. (Cancelled).